SEQUENCE LISTING

<110> Kalluri, Raghuram

<120> Anti-Angiogenic Proteins and Fragments and Methods of Use Thereof

<130> 02312/2085B (formerly 1440.1027-005)

<140> US 09/543,371
<141> 2000-04-04

<150> US 60/089,689
<151> 1998-06-17

<150> US 60/126,175
<151> 1999-03-25

<150> US 09/335,224
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<170> PatentIn version 3.1

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gac cca cag tgt cct tct ggg acc aaa att ctt tac cac ggg tac tct       96
Asp Pro Gln Cys Pro Ser Gly Thr Lys Ile Leu Tyr His Gly Tyr Ser
            20                  25                  30

ttg ctc tac gtg caa ggc aat gaa cgg gcc cat gga cag gac ttg ggc      144
Leu Leu Tyr Val Gln Gly Asn Glu Arg Ala His Gly Gln Asp Leu Gly
        35                  40                  45

acg gcc ggc agc tgc ctg cgc aag ttc agc aca atg ccc ttc ctg ttc      192
Thr Ala Gly Ser Cys Leu Arg Lys Phe Ser Thr Met Pro Phe Leu Phe
    50                  55                  60

tgc aat att aac aac gtg tgc aac ttt gca tca cga aat gac tac tcg      240
Cys Asn Ile Asn Asn Val Cys Asn Phe Ala Ser Arg Asn Asp Tyr Ser
65                  70                  75                  80

tac tgg ctg tcc acc cct gag ccc atg ccc atg tca atg gca ccc atc      288
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acg ggg gaa aac ata aga cca ttt att agt agg tgt gct gtg tgt gag      336
Thr Gly Glu Asn Ile Arg Pro Phe Ile Ser Arg Cys Ala Val Cys Glu
            100                 105                 110

gcg cct gcc atg gtg atg gcc gtg cac agc cag acc att cag atc cca      384
Ala Pro Ala Met Val Met Ala Val His Ser Gln Thr Ile Gln Ile Pro
        115                 120                 125

ccg tgc ccc agc ggg tgg tcc tcg ctg tgg atc ggc tac tct ttt gtg      432
Pro Cys Pro Ser Gly Trp Ser Ser Leu Trp Ile Gly Tyr Ser Phe Val
    130                 135                 140

atg cac acc agc gct ggt gca gaa ggc tct ggc caa gcc ctg gcg tcc      480
Met His Thr Ser Ala Gly Ala Glu Gly Ser Gly Gln Ala Leu Ala Ser
145                 150                 155                 160

ccc ggc tcc tgc ctg gag gag ttt aga agt gcg cca ttc atc gag tgt      528
Pro Gly Ser Cys Leu Glu Glu Phe Arg Ser Ala Pro Phe Ile Glu Cys
                165                 170                 175

cac ggc cgt ggg acc tgc aat tac tac gca aac gct tac agc ttt tgg      576
His Gly Arg Gly Thr Cys Asn Tyr Tyr Ala Asn Ala Tyr Ser Phe Trp
            180                 185                 190

ctc gcc acc ata gag agg agc gag atg ttc aag aag cct acg ccg tcc      624
Leu Ala Thr Ile Glu Arg Ser Glu Met Phe Lys Lys Pro Thr Pro Ser
        195                 200                 205

acc ttg aag gca ggg gag ctg cgc acg cac gtc agc cgc tgc caa gtc      672
Thr Leu Lys Ala Gly Glu Leu Arg Thr His Val Ser Arg Cys Gln Val
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Leu Leu Tyr Val Gln Gly Asn Glu Arg Ala His Gly Gln Asp Leu Gly
        35                  40                  45
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Thr Ala Gly Ser Cys Leu Arg Lys Phe Ser Thr Met Pro Phe Leu Phe
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Cys Asn Ile Asn Asn Val Cys Asn Phe Ala Ser Arg Asn Asp Tyr Ser
65 70 75 80

Tyr Trp Leu Ser Thr Pro Glu Pro Met Pro Met Ser Met Ala Pro Ile
85 90 95

Thr Gly Glu Asn Ile Arg Pro Phe Ile Ser Arg Cys Ala Val Cys Glu
100 105 110

Ala Pro Ala Met Val Met Ala Val His Ser Gln Thr Ile Gln Ile Pro
115 120 125

Pro Cys Pro Ser Gly Trp Ser Ser Leu Trp Ile Gly Tyr Ser Phe Val
130 135 140

Met His Thr Ser Ala Gly Ala Glu Gly Ser Gly Gln Ala Leu Ala Ser
145 150 155 160

Pro Gly Ser Cys Leu Glu Glu Phe Arg Ser Ala Pro Phe Ile Glu Cys
165 170 175

His Gly Arg Gly Thr Cys Asn Tyr Tyr Ala Asn Ala Tyr Ser Phe Trp
180 185 190

Leu Ala Thr Ile Glu Arg Ser Glu Met Phe Lys Lys Pro Thr Pro Ser
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Thr Leu Lys Ala Gly Glu Leu Arg Thr His Val Ser Arg Cys Gln Val
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Cys Met Arg Arg Thr
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1               5                  10                  15

ccc atg tgc ccg gtg ggc atg aac aaa ctc tgg agt gga tac agc ctg       96
Pro Met Cys Pro Val Gly Met Asn Lys Leu Trp Ser Gly Tyr Ser Leu
            20                  25                  30

ctg tac ttc gag ggc cag gag aag gcg cac aac cag gac ctg ggg ctg      144
Leu Tyr Phe Glu Gly Gln Glu Lys Ala His Asn Gln Asp Leu Gly Leu
        35                  40                  45

gcg ggc tcc tgc ctg gcg cgg ttc agc acc atg ccc ttc ctg tac tgc      192
Ala Gly Ser Cys Leu Ala Arg Phe Ser Thr Met Pro Phe Leu Tyr Cys
    50                  55                  60

aac cct ggt gat gtc tgc tac tat gcc agc cgg aac gac aag tcc tac      240
Asn Pro Gly Asp Val Cys Tyr Tyr Ala Ser Arg Asn Asp Lys Ser Tyr
65                  70                  75                  80

tgg ctc tct acc act gcg ccg ctg ccc atg atg ccc gtg gcc gag gac      288
Trp Leu Ser Thr Thr Ala Pro Leu Pro Met Met Pro Val Ala Glu Asp
                85                  90                  95

gag atc aag ccc tac atc agc cgc tgt tct gtg tgt gag gcc ccg gcc      336
Glu Ile Lys Pro Tyr Ile Ser Arg Cys Ser Val Cys Glu Ala Pro Ala
            100                 105                 110

atc gcc atc gcg gtc cac agt cag gat gtc tcc atc cca cac tgc cca      384
Ile Ala Ile Ala Val His Ser Gln Asp Val Ser Ile Pro His Cys Pro
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        115                 120                 125

gct ggg tgg cgg agt ttg tgg atc gga tat tcc ttc ctc atg cac acg      432
Ala Gly Trp Arg Ser Leu Trp Ile Gly Tyr Ser Phe Leu Met His Thr
    130                 135                 140

gcg gcg gga gac gaa ggc ggt ggc caa tca ctg gtg tca ccg ggc agc      480
Ala Ala Gly Asp Glu Gly Gly Gly Gln Ser Leu Val Ser Pro Gly Ser
145                 150                 155                 160

tgt cta gag gac ttc cgc gcc aca cca ttc atc gaa tgc aat gga ggc      528
Cys Leu Glu Asp Phe Arg Ala Thr Pro Phe Ile Glu Cys Asn Gly Gly
                165                 170                 175

cgc ggc acc tgc cac tac tac gcc aac aag tac agc ttc tgg ctg acc      576
Arg Gly Thr Cys His Tyr Tyr Ala Asn Lys Tyr Ser Phe Trp Leu Thr
            180                 185                 190

acc att ccc gag cag agc ttc cag ggc tcg ccc tcc gcc gac acg ctc      624
Thr Ile Pro Glu Gln Ser Phe Gln Gly Ser Pro Ser Ala Asp Thr Leu
        195                 200                 205

aag gcc ggc ctc atc cgc aca cac atc agc cgc tgc cag gtg tgc atg      672
Lys Ala Gly Leu Ile Arg Thr His Ile Ser Arg Cys Gln Val Cys Met
    210                 215                 220

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Leu Tyr Phe Glu Gly Gln Glu Lys Ala His Asn Gln Asp Leu Gly Leu
        35                  40                  45

Ala Gly Ser Cys Leu Ala Arg Phe Ser Thr Met Pro Phe Leu Tyr Cys
    50                  55                  60

Asn Pro Gly Asp Val Cys Tyr Tyr Ala Ser Arg Asn Asp Lys Ser Tyr
65                  70                  75                  80
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Trp Leu Ser Thr Thr Ala Pro Leu Pro Met Met Pro Val Ala Glu Asp
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Glu Ile Lys Pro Tyr Ile Ser Arg Cys Ser Val Cys Glu Ala Pro Ala
100 105 110

Ile Ala Ile Ala Val His Ser Gln Asp Val Ser Ile Pro His Cys Pro
115 120 125

Ala Gly Trp Arg Ser Leu Trp Ile Gly Tyr Ser Phe Leu Met His Thr
130 135 140

Ala Ala Gly Asp Glu Gly Gly Gly Gln Ser Leu Val Ser Pro Gly Ser
145 150 155 160

Cys Leu Glu Asp Phe Arg Ala Thr Pro Phe Ile Glu Cys Asn Gly Gly
165 170 175

Arg Gly Thr Cys His Tyr Tyr Ala Asn Lys Tyr Ser Phe Trp Leu Thr
180 185 190

Thr Ile Pro Glu Gln Ser Phe Gln Gly Ser Pro Ser Ala Asp Thr Leu
195 200 205

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Lys Asn Leu
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acg aga ggc ttt gtc ttc acc cga cac agt caa acc aca gca att cct       96
Thr Arg Gly Phe Val Phe Thr Arg His Ser Gln Thr Thr Ala Ile Pro
            20                  25                  30

tca tgt cca gag ggg aca gtg cca ctc tac agt ggg ttt tct ttt ctt      144
Ser Cys Pro Glu Gly Thr Val Pro Leu Tyr Ser Gly Phe Ser Phe Leu
        35                  40                  45

ttt gta caa gga aat caa cga gcc cac gga caa gac ctt gga act ctt      192
Phe Val Gln Gly Asn Gln Arg Ala His Gly Gln Asp Leu Gly Thr Leu
    50                  55                  60

ggc agc tgc ctg cag cga ttt acc aca atg cca ttc tta ttc tgc aat      240
Gly Ser Cys Leu Gln Arg Phe Thr Thr Met Pro Phe Leu Phe Cys Asn
65                  70                  75                  80
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gtc aat gat gta tgt aat ttt gca tct cga aat gat tat tca tac tgg      288
Val Asn Asp Val Cys Asn Phe Ala Ser Arg Asn Asp Tyr Ser Tyr Trp
                85                  90                  95

ctg tca aca cca gct ctg atg cca atg aac atg gct ccc att act ggc      336
Leu Ser Thr Pro Ala Leu Met Pro Met Asn Met Ala Pro Ile Thr Gly
            100                 105                 110

aga gcc ctt gag cct tat ata agc aga tgc act gtt tgt gaa ggt cct      384
Arg Ala Leu Glu Pro Tyr Ile Ser Arg Cys Thr Val Cys Glu Gly Pro
        115                 120                 125

gcg atc gcc ata gcc gtt cac agc caa acc act gac att cct cca tgt      432
Ala Ile Ala Ile Ala Val His Ser Gln Thr Thr Asp Ile Pro Pro Cys
    130                 135                 140

cct cac ggc tgg att tct ctc tgg aaa gga ttt tca ttc atc atg ttc      480
Pro His Gly Trp Ile Ser Leu Trp Lys Gly Phe Ser Phe Ile Met Phe
145                 150                 155                 160

aca agt gca ggt tct gag ggc acc ggg caa gca ctg gcc tcc cct ggc      528
Thr Ser Ala Gly Ser Glu Gly Thr Gly Gln Ala Leu Ala Ser Pro Gly
                165                 170                 175

tcc tgc ctg gaa gaa ttc cga gcc agc cca ttt cta gaa tgt cat gga      576
Ser Cys Leu Glu Glu Phe Arg Ala Ser Pro Phe Leu Glu Cys His Gly
            180                 185                 190

aga gga acg tgc aac tac tat tca aat tcc tac agt ttc tgg ctg gct      624
Arg Gly Thr Cys Asn Tyr Tyr Ser Asn Ser Tyr Ser Phe Trp Leu Ala
        195                 200                 205

tca tta aac cca gaa aga atg ttc aga aag cct att cca tca act gtg      672
Ser Leu Asn Pro Glu Arg Met Phe Arg Lys Pro Ile Pro Ser Thr Val
    210                 215                 220

aaa gct ggg gaa tta gaa aaa ata ata agt cgc tgt cag gtg tgc atg      720
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        35                  40                  45

Phe Val Gln Gly Asn Gln Arg Ala His Gly Gln Asp Leu Gly Thr Leu
    50                  55                  60

Gly Ser Cys Leu Gln Arg Phe Thr Thr Met Pro Phe Leu Phe Cys Asn
65                  70                  75                  80

Val Asn Asp Val Cys Asn Phe Ala Ser Arg Asn Asp Tyr Ser Tyr Trp
                85                  90                  95

Leu Ser Thr Pro Ala Leu Met Pro Met Asn Met Ala Pro Ile Thr Gly
            100                 105                 110

Arg Ala Leu Glu Pro Tyr Ile Ser Arg Cys Thr Val Cys Glu Gly Pro
        115                 120                 125

Ala Ile Ala Ile Ala Val His Ser Gln Thr Thr Asp Ile Pro Pro Cys
    130                 135                 140

Pro His Gly Trp Ile Ser Leu Trp Lys Gly Phe Ser Phe Ile Met Phe
145                 150                 155                 160

Thr Ser Ala Gly Ser Glu Gly Thr Gly Gln Ala Leu Ala Ser Pro Gly
                165                 170                 175

Ser Cys Leu Glu Glu Phe Arg Ala Ser Pro Phe Leu Glu Cys His Gly
            180                 185                 190
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Arg Gly Thr Cys Asn Tyr Tyr Ser Asn Ser Tyr Ser Phe Trp Leu Ala
195 200 205

Ser Leu Asn Pro Glu Arg Met Phe Arg Lys Pro Ile Pro Ser Thr Val
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<210> 15
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